

**REGIONAL BREEDERS TESTING NETWORK [RBTN]: AN UPDATE****Don C. Jones****Cotton Incorporated****Cary, NC****Ted P. Wallace****Mississippi State University****Mississippi State, MS****Abstract**

The Regional Breeders Testing Network (RBTN) is a multi-environment trial (MET) conducted each year through the cooperative efforts of State and Federal public cotton breeders located across the major cotton growing regions of the USA. A key component in all successful commercial breeding programs is the ability to thoroughly characterize germplasm performance via access to an extensive network of test sites. Other than formal university variety trials, public breeding programs have been sorely lacking in the ability to evaluate advanced breeding lines in a single-year MET due to resource limitations. Furthermore, performance of a non-transgenic public breeding line may be compromised in a university trial comprised primarily of transgenic insect resistant commercial varieties. The RBTN, through the support of support of Cotton Incorporated and the combined efforts of public cotton breeders across the entire cotton belt, serves to fill the need of a MET for conventional breeding lines and does so at the nominal cost of conducting a single location trial. In addition to providing yield and fiber quality performance data, some RBTN sites include evaluation for biotic/abiotic stresses such as nematode resistance, tarnished plant bug resistance, Fusarium and Verticillium wilt resistance, and heat tolerance. The wide range of environments provided for in the RBTN allows for discovery and delineating areas of adaptation with a potential to increase the value and application of a breeding line, which otherwise might be limited to the locale of the originating breeding program.